

inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" means those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.

It is asserted in the office action that the present application contains two inventions: one as reflected in claims 1-43, a device for impelling fluids through an exit conduit, and the second as shown in claims 44-61, a method of impelling fluids through an exit conduit. It is asserted that the common technical feature in the two groups of claims is a fluid injector system for chromatography, and further asserted that this feature cannot be a special technical feature under PCT Rule 13.2 because it is shown in the prior art, specifically US 6,387,234 at column 2 lines 30-60.

Applicants respectfully disagree with all of these assertions. The special technical feature of both groups of claims, and an important feature of the invention, is reflected in Claims 1 and 44:

“... a housing having a chamber for receiving and/or holding one or more fluids under pressure and an exterior surface, and said housing having at least a first exit opening, a first inlet opening, a second exit opening, and a second inlet opening, each opening extending from said chamber to said exterior surface for receiving conduit means;

a first exit conduit means received by said first exit opening in communication with said chamber for transporting fluids from said chamber out of said first exit opening, said first exit conduit means for connection with an analytical device;

a first inlet conduit means received by said first inlet opening in communication said chamber for transporting a first fluid into said chamber, said first inlet conduit means for connection to a first supply device;

a second inlet conduit means received by said second inlet opening

in communication with said chamber for transporting a second fluid into said chamber, said second inlet means for connection with a second supply device;

a second exit conduit means received by said second exit opening in communication with said chamber for transporting fluids from said chamber out of said second exit opening, said second exit conduit means for connection with a waste receptacle;

and at least one valve means disposed in at least one of said first exit conduit means, said second exit conduit means and said second inlet conduit means, said valve means having a closed position wherein fluid is prevented from flowing through said valve means and an open position wherein said fluid is allowed to flow through said valve means, said valve means responsive to a signal to assume one of said positions;

wherein said chamber is for receiving fluid from each of said first inlet conduit means and said second inlet conduit means, and for discharging fluid through said first exit conduit means and said second exit conduit means.”

An embodiment reflecting this feature is shown in Figure 1 of the application. Thus, the special technical feature is shown in both groups of claims.

This special technical feature is distinguishable from the prior art. The text of US 6,387,234 at column 2 lines 30-60 reads as follows:

The present invention provides an advancement in the processing of samples based upon multiplexed microfluidics and capillary array electrophoresis. A system of the invention can process multiple samples and if desired, execute multiple sample manipulation steps, preferably all in a parallel fashion. In one embodiment, the system can contain a plurality of intake capillaries, a chromatographic column array having a plurality of chromatographic columns and a separation capillary array having a plurality of separation capillaries. At least one detector can be integrated into the system to detect analytes eluting from the separation

capillaries and/or the chromatographic columns. In another embodiment, the system contains a plurality of intake capillaries each having a reaction portion and a separation capillary array having a plurality of separation capillaries.

A system of the invention typically employs at least one multiplexed freeze-thaw valve assembly (MFTV) that regulates the flow of fluids in the system. Valve assemblies are positioned in a system in a manner that allows sample movement through the integrated components in automated fashion. Sample and fluid movement in the system are typically controlled by a series of valves and pumps that are activated by an electronic signal from a computer. A system of the invention typically contains at least one set of junctions and at least one manifold that permits fluid communication between selected integrated components in the system. A multiplexed system of the invention can advantageously support two sample analysis channels to about one thousand or more sample analysis channels.

The text referred to in the cited patent has nothing to do with the apparatus of the present application. The cited patent pertains to capillary gel electrophoresis, in which each capillary contains a gel through which samples with analytes are passed. Each sample flows through an individual capillary, which is in turn connected to a chromatography column and detector. The valves which control the flow of sample through the capillary are freeze-thaw valves (therefore controlled by temperature). There is no mention of high pressure, and no discussion of mixing of fluids in a high pressure chamber, or injection of the fluid into the chromatography column, as reflected in Claims 1 and 44. Applicant respectfully submits that the above text does not disclose or suggest the special technical features of the invention as reflected in Claims 1 and 44. For this reason, there is unity of invention, and all claims should be examined together. A search on the features of Claim 1 will locate any prior art relevant to both groups of claims, as they are united by these features.

Conclusion

An action on the merits, directed to Claims 1-61, is respectfully requested at an early date.

April 12, 2010

Tel. No. (508) 482-2714

Fax. No. (508) 482-2320

Respectfully submitted,

/Anthony J. Janiuk/

Anthony J. Janiuk
Attorney for Applicants